Remarks

In the Office Action mailed February 17, 2009, the Examiner rejected claims 25, 30, 31, 33, 35, 37, and 39 under 35 U.S.C. § 112(1) as failing to comply with the written description requirement with respect to the claim limitation "from a single user action." The Examiner objected to the drawings and specification with respect to Figure 3. The Examiner objected to Claim 39 as being dependent on cancelled Claim 38. The Examiner rejected claims 1, 7, 37 and 39 under 35 U.S.C. § 103(a) as being unpatentable over Abboud et al. (US 2002/0184484) in view of Steitle et al. (US 2002/0188700), and further in view of Fong (US 2003/0055919). The Examiner rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Abboud et al. in view of Steitle et al. (US 2002/0188700), Fong (US 2003/0055919), and further in view of Haun et al. (US 6,751,658). The Examiner rejected claims 25, 31, and 33, under 35 U.S.C. § 103(a) as being unpatentable over Abboud et al. in view of Steitle et al., further in view of Raymond et al. (US 6,108,697). The Examiner rejected claim 30 under 35 U.S.C. § 103(a) as being unpatentable over Aboud et al. in view of Steitle et al., Fong et al., and further in view of Li et al. (US 6,012,088). The Examiner rejected Claims 22 and 35 under 35 U.S.C. § 103(a) as being unpatentable over Abboud et al. in view of Steitle et al., Raymond et al. and further in view of Li et al. The Examiner rejected claims 41, 43-44, and 48 under 35 U.S.C. § 103(a) as being unpatentable over Fong et al. in view of Steitle et al. and further in view of Kawas et al. (US 6,058,262). The Examiner rejected claim 42 under 35 U.S.C. § 103(a) as being unpatentable over Fong et al. in view of Steitle et al., Kawas et al. and further in view of Li et al. The Examiner rejected claim 45 under 35 U.S.C. § 103(a) as being unpatentable over Fong et al. in view of Steitle et al., Kawas et al. and AAPA. The Examiner rejected claim 46 under 35 U.S.C. § 103(a) as being unpatentable over Fong et al. in view of Steitle et al, Kawas et al. and Official Notice. The Examiner rejected claim 47 under 35 U.S.C. § 103(a) as being unpatentable over Fong et al. in view of Steitle et al., Kawas et al. and Haun et al.

Reconsideration and re-examination of the application as amended considering the following remarks is respectfully requested.

Rejection Under 35 U.S.C. § 112(1)

The Examiner rejected a number of claims as not being supported by the specification with respect to the limitation added in the previous amendment related to deploying the digital images "from a single user action". Applicants respectfully disagree and traverse the Examiner's rejection.

As described in the previous response, Applicants' support for this limitation is found in Para. [0033] of Applicants' specification, for example, which states: "the master configurer 202 may build and deploy the network from the network design without user intervention except to provide the WAN IP available." Applicants respectfully submit that one of ordinary skill in the art would understand that the single user action corresponds to providing the WAN IP available and the remaining configuring and deploying is done without user intervention, i.e. the configuring and deploying is performed with a single user action as claimed in claim 25. However, Applicants have amended claim 25 so the language is consistent with the specification to obviate the Examiner's rejection and advance prosecution.

Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 U.S.C. § 112(1).

Objection to Drawings and Specification

The Examiner objected to the drawings as failing to show all the elements of Figure 3 as described in the specification amendment filed 11/19/08. Applicants respectfully disagree and traverse the Examiner's objection.

Figure 3 was filed with a corresponding amendment to the specification describing the Figure in the response filed 9/9/2005. The specification was further amended in the response filed 11/19/2008 to add a brief description of Figure 3 to the appropriate section of the specification. Both amendments are supported by the specification as originally filed. Applicants believe that the specification and drawings meet the requirements of 37 CFR 1.83(a). If the Examiner disagrees, the Examiner is requested to provide more detailed information with respect to the alleged deficiency in the Figure and/or the specification.

Claim Objections

The Examiner objected to Claim 39 as depending from a cancelled claim. Applicants have amended Claim 39 to obviate the Examiner's objection.

Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected all pending claims as being unpatentable over the primary references to Abboud et al. (US 2002/0184484) or Fong et al (Us2003/0055919) in view of one or more secondary references to Steitle et al. (US 2002/0188700), Raymond (US 6,108,697), Haun (US 6,751,658), and/or Li et al. (US 6,012,088). As described in detail below, Applicants respectfully disagree and traverse the Examiner's rejection.

With respect to the Examiner's reliance on MPEP 2145(IV), Applicants are not attacking the references individually to show nonobviousness of the combination. Rather, Applicants have attacked the proposed combination by demonstrating that certain features are not found in any of the individual references relied upon. As such, even if the combination were proper, the proposed combination fails to teach or suggest such features.

The primary reference to **Abboud et al.** is directed to a system and method for automatically re-provisioning or re-purposing an appliance server. As described in Para. [0052]-[0055], for example, Abboud et al. includes a number of partitions on each appliance server where different partitions may have different digital images. Alternatively, a different image may be sent to a server over the network. Prior to re-provisioning, the re-provisioning utility places the system's network settings/parameters in a file that is forwarded to the images partition. After the new image is loaded, the network settings/parameters are retrieved. As such, the configuring process disclosed by Abboud et al. may be summarized as saving the current configuration, installing a new/different image, and reloading the saved configuration. Abboud et al. does not disclose how to determine the configuration settings initially, or how to change the configuration settings so that the appliance server could function in a different network topology or with a different number of WAN IP addresses, etc. as disclosed and claimed by Applicants. Rather, Abboud et al. relies on the current settings of the network appliance server and copies those

settings to the new server. There is no disclosure or suggestion for how to determine such settings for a plurality of network designs based on a design list as claimed in Claim 1, for example.

In contrast to the system/method disclosed by Abboud et al., Applicants' invention as disclosed and claimed is directed to configuring a plurality of servers for interoperability using a network design that specifies the number of WAN IP addresses and a network topology. The configuration settings are then used to build a configured digital image that is deployed to each server. Abboud et al. does not disclose or suggest a system for building and deploying a configured digital image for a plurality of servers based on a network design as disclosed and claimed by Applicants. Rather, the system and method disclosed by Abboud et al. selects a new/different image and then copies the previous configuration to the new image. There is no disclosure or suggestion in Abboud et al. of how to change the software and/or hardware settings including the IP address of the appliance server, or how to configure a plurality of servers with settings determined to provide cohesive network settings operable to interconnect the plurality of network servers based on a selected network design and topology. As described in greater detail below, none of the secondary references relied upon by the Examiner disclose this feature such that any proposed combination fails to teach or suggest Applicants' invention as claimed.

The Examiner's reliance on Fig. 2 of Abboud is misplaced as Fig. 2 does not show configuration of a plurality of servers. Rather Fig. 2 shows replacement of a single server as described on p. 1, para. 9. The configuration process is described in Para. 52 where the re-provisioning utility sets the network settings for the new images by placing the network settings in a file that is forwarded to the images partition where it may later be access to restore the system parameters. While this may be performed for more than one appliance server, copying network settings from an existing operating network is fundamentally different from configuring the network in the first instance as disclosed and claimed by Applicants. In particular, the software and hardware settings for the network servers are not based upon the design rule and the first network design. Rather, the software and hardware settings are determined based on the existing server being replaced or re-provisioned.

Similarly, the Examiner's reliance on Para. 36 of Abboud as disclosing configuring logic to configure network settings is misplaced. As described in Para. 35 and 36 of Abboud, the system includes one or more hidden partitions that may have different settings and can each be activated in response to a re-provisioning request. However, there is no disclosure of configuring logic to configure the network settings. As described in Para. 36, the settings are determined at the manufacturing stage of the appliance server. There is no disclosure or suggestion of how or who determines the settings for interoperability, and no disclosure or suggestion to use configuring logic as disclosed and claimed by Applicants. The only automatic or logic controlled provisioning is by copying the settings from an existing appliance server as described with reference to Fig. 4.

Likewise, Abboud does not disclose or suggest building a respective digital image with the network settings as determined by the configuring logic as claimed in Applicants' independent claims. As described above, Abboud discloses building digital images with different settings but does not disclose or suggest who or what determines the settings. As such, Abboud does not disclose or suggest building digital images as disclosed and claimed by Applicants.

The reference to **Steitle et al.** (US 2002/0188700) is directed to a system and method of interactive network system design, primarily focusing on determining the initial and recurring costs for various possible network configurations. The Examiner relies on Steitle as disclosing receiving a design list and generating a plurality of network designs. While Steitle et al. discloses a user interface allowing a user to select various network components and a desired topology, there is no disclosure or suggestion of configuring network settings based on the design or building digital images using the configured settings as disclosed and claimed by Applicants. Steitle does not disclose or suggest receiving a design list including a number of WAN IP addresses assigned to the network, which affects the plurality of network designs that may be generated. Rather, as disclosed in the portions relied upon by the Examiner, the user determines a desired network design as illustrated in Fig. 2. There is no disclosure or suggestion of a design rule determining a first server in the network is a gateway server as disclosed and claimed by Applicants.

The reference to **Fong et al.** is directed to a system and method similar to that disclosed by Abboud et al. in that Fong et al. captures hardware and software settings from an existing server and deploys these hardware and software settings to one or more target servers. As described in Paras. 14-16, for example, the deployment information is captured from a reference data processing system to deploy on the one or more data processing systems. The Examiner's reliance on Fig. 5 step 508, 510 and Fig. 8 step 814, 816 is misplaced as these both reflect selections by the user that determine which configuration settings are captured from the reference data processing system. Fong et al. does not disclose or suggest configuring software and hardware settings based upon the design rule and the first network design. This feature is also not disclosed in Abboud or in Steitle such that the combination of Abboud, Steitle, and Fong fails to teach or suggest the invention as disclosed and claimed by Applicants in Claims 1, 7, 37, and 39.

For the reasons above, Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 USC § 103(a) of Claims 1, 7, 37, and 39.

Rejection of Claim 8 Under 35 USC § 103(a)

The Examiner rejected claim 8 as being unpatentable over Abboud in view of Steitle, Fong, and **Haun et al.** (US 6,751,658). Applicants respectfully disagree and traverse the Examiner's rejection.

The reference to **Haun et al.** (US 6,751,658) is directed to a system/method for providing a reliable operating system for clients of a net-booted environment. Again, there is no disclosure or suggestion in Haun et al. of configuring a plurality of network servers for interoperability, building digital images using the configured settings, and deploying the digital images as disclosed and claimed by Applicants.

As described above and incorporated here by reference, the combination of Abboud, Steitle, and Fong fails to disclose or suggest a method as claimed in Claim 1 from which Claim 8 depends. Furthermore, Haun fails to teach or suggest deploying a dynamically built digital image as disclosed and claimed by Applicants. While Haun generally discloses

transfer of a boot image over a network, the Examiner has not identified a proper rationale for one of ordinary skill in the art to modify Haun as proposed to transfer a dynamically built digital image in response to a netboot request as disclosed and claimed by Applicants.

For the reasons above, Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 USC § 103(a).

Rejection of Claims 25, 31 and 33 Under 35 USC § 103(a)

The Examiner rejected claims 25, 31, and 33 as being unpatentable over Abboud in view of Steitle and further in view of **Raymond et al.** (US 6,108,697). Applicants respectfully disagree and traverse the Examiner's rejection.

The reference to **Raymond et al.** (US 6,108,697) is directed to imaging multiple disks over a network by dividing the imaging stream into segments and allowing individual servers to begin the process at any of the segments. While this reference discloses a particular system/method for deploying digital images to a plurality of servers substantially simultaneously, there is no disclosure or suggestion of configuring software and/or hardware settings and building digital images for a plurality of servers using the configuration settings as disclosed and claimed by Applicants.

As described above and incorporated here by reference, the combination of Abboud and Steitle fails to teach or suggest a GUI having a function to receive a design list including the number of WAN IP addresses. Fig. 6 of Abboud does not disclose or suggest this feature. Likewise this feature is not found in Steitle or Raymond such that the proposed combination taken as a whole fails to teach or suggest such a feature.

As such, Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 USC § 103(a).

Rejection of Claims 30 Under 35 USC §103(a)

The Examiner rejected Claim 30 as being unpatentable over Abboud in view of Steitle, Fong, and further in view of **Li et al.** (US 6,012,088). Applicants respectfully disagree and traverse the Examiner's rejection.

The reference to **Li et al.** (US 6,012,088) discloses a system/method for automatic configuration of an internet access device. The system/method disclosed by Li et al. includes a configuration database that includes the specific configuration settings for an internet access device that is shipped to a customer without being configured. The internet access device accesses the database over a telephone line to obtain the previously determined configuration settings so that the internet access device can communicate over the internet. In contrast to Applicants' claimed invention, Li et al. does not disclose or suggest a system/method for determining the configuration settings that are stored in the configuration database based on a network design list, and does not use the configuration settings to build a configured digital image.

Furthermore, Li et al. teaches away from Applicants' invention in that Li et al., similar to Abboud, teaches providing the device with a generic image that does not include configuration settings.

As previously described, the proposed combination of Abboud, Steitle, and Fong fails to disclose or suggest configuration of a plurality of servers using a design list with a number of available WAN IP addresses. As such, the proposed combination also fails to disclose or suggest a number of WAN IP address being fewer than the number of servers in the network such that the configuration of network settings comprises sending a request to a Domain Name System server. Applicants disagree with the Examiner in that the presence of a NAT server implies that the local network has fewer global or WAN IP address than the number of hosts in the network as NAT is often provided solely for security reasons so that computers on the LAN are not directly accessible from the WAN.

For the reasons above, Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 USC §103 (a).

Rejection of Claims 22 and 35 Under 35 USC §103(a)

The Examiner rejected claims 22 and 35 as being unpatentable over Abboud in view of Steitle, Raymond, and Li. Applicants respectfully disagree and travers the Examiner's rejection.

As described in detail above and incorporated here, none of the references relied upon by the Examiner recognize the implications to the network design of the number of available WAN IP addresses. Applicants invention as disclosed and claims uses this information in configuring the network, generating the configured images, and deploying the images. The prior art relied on by the Examiner fails to teach or suggest network design based on the number of WAN IP addresses available as disclosed and claimed by Applicants.

For the reasons above, Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 USC §103(a).

Rejection of Claims 41, 43-44, and 48 Under 35 USC §103(a)

The Examiner rejected claims 41, 43-44, and 48 as being unpatentable over Fong in view of Steitle and further in view of Kawas et al. (US 6,058,262). Applicants respectfully disagree and traverse the Examiner's rejection.

As stated above, the reference to **Fong et al.** is directed to a system and method similar to that disclosed by Abboud et al. in that Fong et al. captures hardware and software settings from an existing server and deploys these hardware and software settings to one or more target servers. The reference to **Steitle et al.** (US 2002/0188700) is directed to a system and method of interactive network system design, primarily focusing on determining the initial and recurring costs for various possible network configurations. While Steitle et al. discloses a user interface allowing a user to select various network components and a desired topology, there is no disclosure or suggestion of configuring network settings based on the design or building digital images using the configured settings as disclosed and claimed by Applicants. As such, Fong et al. in view of Steitle et al. fails to disclose or sugges configuring software settings for a plurality of network servers based upon a number of

assigned WAN IP addresses with each server being configured to implement the selected network topology and server function. The Examiner is respectfully requested to identify where Steitle discloses a design list based on the number of WAN IP addresses available, as Applicants do not believe this is disclosed or suggested by Steitle. Likewise, these features are not disclosed or suggested by **Kawas et al.**, which is directed to a computer-aided design for networks. As such, the proposed combination fails to disclose or suggest configuring software settings as disclosed and claimed.

The Examiner's reliance on Fig. 2 of Kawas et al. is misplaced as apparently recognized by the Examiner in that Fig. 2 of Kawas merely discloses selecting a network infrastructure and does not disclose or suggest a network topology, which is distinguishable from the "technology" as being Ethernet, ATM, and FDDI ring. Even if this selection could be considered a topology, it is not based on a number of available WAN IP addresses as disclosed and claimed by Applicants.

In addition, the proposed combination of Fong, Steitle, and Kawas fails to teach or suggest building a respective configured digital image for each of the plurality of network servers by importing a generic digital image and incorporating the corresponding software configuration settings to implement the selected network topology based on a number of assigned WAN IP addresses, and deploying each configured digital image to a corresponding one of the plurality of network servers.

The proposed combination also fails to disclose or suggest incorporating rules that govern what is allowed and not allowed through the firewall as claimed in Claim 48. The Examiner's reliance on the "driving logic" fails to meet Applicants' claim limitations. There is no disclosure or suggestion in the prior art relied upon by the Examiner to incorporate firewall rules into the digital image as disclosed and claimed by Applicants.

For the reasons above, Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 USC § 103(a).

Rejection of Claim 42 Under 35 USC § 103(a)

The Examiner rejected Claim 42 as being unpatentable over Fong et al. in view of Steitle et al., Kawas et al. and further in view of Li et al. Applicants respectfully disagree and traverse the Examiner's rejection.

As described above and incorporated here by reference, none of the prior references relied upon by the Examiner disclose or suggest configuring software settings based on a number of WAN IP addresses available and none of the references disclose or suggest incorporating network translation software if the number of assigned WAN IP addresses is less than a number of components specified in the network design. While Li discloses a DNS server and NAT server, there is no disclosure or suggestion of including the DNS or NAT server based on the number of available WAN IP addresses as disclosed and claimed by Applicants.

As such, the proposed combination of references fails to teach or suggest Applicants' invention as claimed in Claim 42 and Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 USC § 103(a)

Rejection of Claims 45 and 46 Under 35 USC § 103(a)

The Examiner rejected claim 45 as being unpatentable over Fong et al. in view of Steitle, Kawas and AAPA, and rejected Claim 46 as being unpatentable over Fong et al. in view of Steitle, Kawas, and Official Notice. Applicants respectfully disagree and traverse the Examiner's rejection.

As described above and incorporated here, the proposed combination of Fong, Steitle, and Kawas fails to teach or suggest configuring software settings based on a number of assigned WAN IP addresses. This feature is also not found in AAPA such that the proposed combination fails to teach or suggest the method as claimed.

As such, Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 USC § 103(a).

Rejection of Claim 47 Under 35 USC § 103(a)

The Examiner rejected claim 47 as being unpatentable over Fong in view of Steitle, Kawas, and Haun. Applicants respectfully disagree and traverse the Examiner's rejection.

As described above and incorporated here, the proposed combination of Fong, Steitle, and Kawas fails to disclose or suggest configuring software settings based on a number of available WAN IP addresses. Similarly, Haun fails to disclose or suggest this feature such that the proposed combination fails to meet Applicants' claim limitations.

As such, Applicants respectfully request the Examiner to reconsider and withdraw the rejection under 35 USC § 103(a).

Summary

Thus, none of the references relied upon by the Examiner taken alone or in any combination discloses or suggests configuring software settings using a network design with a topology based on a number of available WAN IP addresses to provide interoperability for a plurality of network servers, building corresponding images using the configured settings, and deploying the images to corresponding ones of the plurality of servers as disclosed and claimed by Applicants.

For the reasons above, Applicants respectfully submit that the invention as claimed is patentable over the prior art relied upon by the Examiner and Applicants respectfully request the Examiner to reconsider and withdraw the rejections under 35 U.S.C. § 103(a).

Applicants have made a genuine effort to respond to the Examiner's objection and rejections in advancing prosecution of this application. Applicants respectfully submit that all formal and substantive requirements for patentability have been met and that this case is in condition for allowance, which action is respectfully requested.

No additional fees are believed to be due as a result of filing this paper. However, please charge any additional fees or credit any overpayments to our Deposit Account No. 02-3978.

Respectfully submitted,

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